

CHAPTER 108
REUSE OF SOLID WASTE

[Prior to 7/1/83, DEQ Ch 39]

[Prior to 12/3/86, Water, Air and Waste Management[900]]

567—108.1(455B) Scope. This chapter establishes the conditions under which certain solid wastes may be reused, without a solid waste permit. It does not relieve any duty to obtain other permits or comply with other rules which may apply. Solid waste which is not reused in accordance with this chapter must be disposed, processed, composted, recycled or land applied in conformance with Chapters 101 to 121 of these rules. This chapter applies only to the materials listed, and not to such materials mixed with other wastes.

567—108.2(455B) Definitions. For the purposes of this chapter, the following terms shall have the meaning indicated in this rule.

“Coal combustion residue” means any solid waste produced by the burning of coal, either by itself or in conjunction with natural gas or other fossil fuels. It includes, but is not limited to, bottom ash, fly ash, slag, and flue gas desulfurization sludge generated by coal combustion and associated air pollution control equipment.

“Used foundry sand” means residuals from the foundry industry which are derived from molding, core-making, and casting cleaning processes that primarily contain either individually or in combination sand, olivine or clay and which by specified leach test are acceptable for reuse.

“Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

567—108.3(455B) Coal combustion residue.

108.3(1) General conditions for reuse.

a. Storage and use of coal combustion residue shall be in a manner that will not significantly degrade ground or surface water, create a public health hazard or create a nuisance.

b. Coal combustion residue shall not be placed or stored on any wetland or in any water of the state.

108.3(2) Uses for which no permit is required. Coal combustion residue may be stored or used for the following purposes without a permit:

a. Raw material. As a raw material in cement or concrete, filler in asphalt or plastic, and any other similar use where the coal combustion residue is bound up in cementitious material so that leaching and dusting do not occur. Use as a raw material does not include pretreating coal combustion residue for the purpose of disposal.

b. Fill base. As a fill base for roads, parking lots, and any other similar use, not to exceed an average of one ton for each 25 square feet of area covered or an average thickness of 12 inches.

c. Mineral recovery. As a raw material to be used in mineral recovery.

d. Gypsum source. As a source of gypsum in wallboard, plaster or similar uses.

e. Other uses. Any single use of 500 dry tons or less.

567—108.4(455B) Used foundry sand.

108.4(1) General conditions of reuse—foundry sand.

a. A representative sample of used foundry sand shall be used for reuse classification by point of generation. A sample is to be collected from each contributing type of manufacturing process in accordance with U.S. EPA Method SW-846 and the sampling frequency schedule described in the Foundry Sand Management Plan (see IAC subrule 108.4(3)).

b. A representative sample of leachate extracted by RCRA TCLP (Toxic Characteristic Leaching Procedure—referenced 40 CFR Part 261, Appendix II) analysis shall be used for classification of used foundry sand for reuse. Any used foundry sand possessing leachate characteristics less than or equal to 90 percent of federal RCRA TCLP leachate classification limits (reference 40 CFR 261.24) shall be considered acceptable for reuse.

c. A representative sample is to be evaluated for pH using U.S. EPA Method 9045. Any used foundry sand possessing a pH greater than or equal to 5.0 and less than or equal to 10.0 shall be considered acceptable for reuse.

108.4(2) Short-term storage requirements. Used foundry sand may be accumulated in an on-site or off-site storage facility, including shared facilities, without a permit in anticipation of reuse provided that the storage activity is managed in accordance with a site-specific foundry sand management plan that has been certified (approved) by an officer of the facility assuming overall site management responsibility or the designated representative of the officer.

a. Short-term accumulation of used foundry sand shall be restricted only to the extent that the storage site meets or exceeds the site management restrictions listed in paragraph “b” of this subrule, and:

(1) Used foundry sand cannot be stored unless the total accumulation is less than the volume needed for support of the specific reuse application(s) identified by the plan (see subrule 108.4(3)) or, in the alternative,

(2) The accumulation period does not exceed three years.

b. Any storage site used for temporary accumulation of used foundry sand:

(1) Shall be defined by boundaries that do not extend into a wetland or within 1/4 mile of known sinkhole.

(2) Shall not extend below or within 5 feet of normal groundwater elevations, or into any waters of the state.

(3) Shall not be required to meet liner, leachate collection system or daily cover criteria.

(4) Shall not be used for storage of used foundry sand if it does not meet subrule 108.4(1).

108.4(3) Used foundry sand management plan requirements. Any foundry sand management plan developed in anticipation of short-term storage and reuse of used foundry sand must include the following:

a. Identification of an individual responsible for management of the storage site in accordance with the requirements of the plan. Identification is to include:

(1) Name and title.

(2) Mailing address.

(3) Telephone number.

b. For any storage site involving multiple users, identification of the user(s) (i.e., participating facilities) and identification of the facility assuming overall site management responsibility. For each storage site user, identification is to include:

(1) Facility name.

(2) Street address.

(3) Mailing address.

(4) Designated contact person.

(5) Telephone number of designated contact person.

c. Identification of the storage site location with a scaled map or aerial photograph showing as a minimum:

(1) Relevant topographical features of the site.

(2) Site drainage areas, if applicable.

(3) Expected grading plan for the storage pile.

(4) Prohibited storage areas at the storage site.

d. Documentation demonstrating legal entitlement to the use of the site specified for storage of used foundry sand in anticipation of beneficial reuse in accordance with these provisions and as described by the plan.

e. Documentation of department of natural resources approval of a storm water discharge permit for the storage site, if applicable.

f. Identification of reuse application(s) for which used foundry sands are being accumulated.

g. Specification of a compliance assurance and sampling procedure to ensure that only used foundry sands acceptable for reuse are accumulated. Compliance assurance is to be ensured through a defined sampling program requiring, as a minimum, quarterly sampling for the first year, as a baseline, followed by annual foundry sand stream sampling thereafter.

h. Current accumulations of used foundry sand residuals may be made available for reuse and incorporated into the plan provided that representative samples are taken to ensure conformance with the standards outlined in subrule 108.4(1).

i. Identification of site management controls for control of:

- (1) Fugitive dust.
- (2) Storm water run-on, runoff, or containment.
- (3) Access to site.

j. An annual year-end summary of used foundry sand transfers into or out of the storage site, including the following:

(1) The amount, tonnage or volume, of used foundry sand deposited into or withdrawn from the storage site, the date(s) of transfer activity, and a running total of used foundry sand accumulations held at the storage site.

(2) Analytical data for any used foundry sands sampled for reuse classification acceptability.

(3) Detailed information for each reuse activity, including:

1. Identification of party to whom sand was supplied.
2. Identification of transporter if different from 108.4(3)“a.”
3. The approximate tonnage or volume of used foundry sand withdrawn.
4. Date transported.
5. Description of beneficial reuse and its location.

The annual report for any given year must be completed by March 1 of the following year. Submittal to the department of natural resources is not required although each annual report must be kept for a minimum period of five years following the year-end date, or for the period of site use plus five years. Any initial sampling data is to be kept as baseline data for the period of time the storage site is in use.

k. Annual management certification (approval) by an officer of the facility assuming overall site management responsibility or the designated representative of the officer that any used foundry sand accumulated onsite and transported offsite for reuse is being managed in accordance with the procedures and requirements of the approved plan.

108.4(4) *Beneficial uses for which no permit is required.* Used foundry sand may be used for the following beneficial purposes without a solid waste management permit in accordance with a used foundry sand management plan consistent with subrule 108.4(3) provided it is for the following beneficial purposes:

a. Daily cover for litter and vermin control at a sanitary landfill in accordance with the sanitary landfill permit.

b. Road ballast.

c. Construction/architectural fill.

d. Dike or levee construction, repair or maintenance. Prior written notification must be made by the foundry to the department. If the department does not respond within 30 days, use shall be deemed appropriate.

e. Fill base for roads, road shoulders, parking lots, and any other similar use.

f. Any other beneficial use upon written notification by a foundry person of the intended reuse activity. If the department does not provide written objection within 30 days, the intended use is deemed appropriate.

108.4(5) *Uses for which no authorization is required.* The following used foundry sand applications may be used without authorization since this form of beneficial use qualifies it as a commercial material.

a. Raw material constituent. For flowable fill (low strength concrete material), or concrete, asphalt and any other similar use where the used foundry sand is encapsulated while providing all or a portion of the aggregate and critical constituents necessary for production of the final product.

b. Production feedstock. For reclaim or reuse as a production material.

These rules are intended to implement Iowa Code sections 455B.301 to 455B.308.

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